

Clinical Trial Protocol

Iranian Registry of Clinical Trials

21 Jul 2026

The effect of twelve weeks of physical activity with Ginkgobiloba supplementation on the serum levels of brain-derived neurotrophic factor and elderly patients lifestyle

Protocol summary

Study aim

The effect of twelve weeks of physical activity with Ginkgobiloba supplementation on the serum levels of brain-derived neurotrophic factor and elderly patients lifestyle

Design

The clinical trial consisted of a control group, with parallel, randomized groups, 40 subjects in each group and 10 in each group.

Settings and conduct

The purpose of this study was to determine the effect of 12 weeks of aerobic and resistance exercise 5 days a week for 20 minutes and daily intake of Ginkgo biloba supplement on BDNF serum levels and quality of life in 40 elderly people aged 60-75 years in Tehran. In this study, Kit Elisa, Quality of Life questionnaire and Physical Activity Questionnaire were used.

Participants/Inclusion and exclusion criteria

inclusion criteria: Old and healthy people 60 to 75 years old, who do not suffering from heart, bone, brain, kidney, liver, respiratory and hormonal diseases. Be inactive and do not do any physical activity during the week. Do not have a medical ban on exercising or taking ginkgo Biloba supplements exclusion criteria: Using Cigarette or drug, antioxidant supplements or various anti-inflammatory drugs

Intervention groups

Ginkgo biloba supplementation exercise group, Ginkgo biloba supplementation exercise control group

Main outcome variables

Brain derived neurotrophic factor (BDNF) serum level and quality of life

General information

Reason for update

Acronym

IRCT registration information

IRCT registration number: **IRCT20191223045864N1**

Registration date: **2020-01-31, 1398/11/11**

Registration timing: **retrospective**

Last update: **2020-01-31, 1398/11/11**

Update count: **0**

Registration date

2020-01-31, 1398/11/11

Registrant information

Name

shadi Jalalian

Name of organization / entity

Science an research branch of Islamic azad university

Country

Iran (Islamic Republic of)

Phone

+98 21 8837 6044

Email address

shadijalalian@gmail.com

Recruitment status

Recruitment complete

Funding source

Expected recruitment start date

2019-01-21, 1397/11/01

Expected recruitment end date

2019-02-09, 1397/11/20

Actual recruitment start date

2019-02-12, 1397/11/23

Actual recruitment end date

2019-03-06, 1397/12/15

Trial completion date

2019-07-16, 1398/04/25

Scientific title

The effect of twelve weeks of physical activity with

Ginkgobiloba supplementation on the serum levels of brain-derived neurotrophic factor and elderly patients lifestyle

Public title
The effect of twelve weeks of physical activity with Ginkgobiloba supplementation on the serum levels of brain-derived neurotrophic factor and elderly patients lifestyle

Purpose
Supportive

Inclusion/Exclusion criteria
Inclusion criteria:
An elderly person with age 60 to 70 Having Iranian nationality Speaking in persian Being completely cautious during this study Having communication ability Having ability to answer the questionnaires. living in Tehran. Being inactive and do not have any physical activity or exercise during the week Do not have any known mental illness (psychosis)
Exclusion criteria:
Active people based on the questionnaire Opt out of answering the questionnaire while doing the job and interview Refrain from running the exercise or supplement you are looking for Unwanted things have happened

Age
From **60 years** old to **75 years** old

Gender
Both

Phase
N/A

Groups that have been masked
No information

Sample size
Target sample size: **40**
Actual sample size reached: **40**

Randomization (investigator's opinion)
Randomized

Randomization description
The randomization method was simple, individual, and sealed using envelopes. So that the names of ten subjects were written in four envelopes and in each one. Then, each of the intervention and control groups was assigned A, B, C, D codes and randomly assigned to one of the training, supplement, exercise, and control groups. Making the envelope, it was determined in which group each of the subjects belonged.

Blinding (investigator's opinion)
Not blinded

Blinding description

Placebo
Used

Assignment
Parallel

Other design features

Secondary Ids

empty

Ethics committees

1

Ethics committee

Name of ethics committee

Sport Sciences Research institute of Iran

Street address

No.3, 5th Ave, Miremad St, Motaharri St

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Province

Tehran

Postal code

1587958711

Approval date

2019-07-01, 1398/04/10

Ethics committee reference number

IR.SSRC.REC.1398.116

Health conditions studied

1

Description of health condition studied

aging

ICD-10 code

ICD-10 code description

Primary outcomes

1

Description

Brain derived neurotrophic factor serum level

Timepoint

Before the intervention and 48 hours after the end of the 12-week exercise and supplementation interventions

Method of measurement

Serum Concentration Measurement Using ELISA Laboratory Kit

Secondary outcomes

1

Description

Quality of Life

Timepoint

Before the intervention and 48 hours after the end of the 12-week exercise and supplementation interventions

Method of measurement

SF-36 Quality of Life Questionnaire

Intervention groups

1

Description

Intervention group: Exercise including 5 minutes warm-up and 5 minutes of balance and walking movements

and 5 minutes of progressive resistance training and 5 minutes of cooling which were performed for a total of 20 minutes for 5 days a week for 12 weeks. The training method was progressive and according to the level of ability of individuals. With 0.5, 0.75, 1.5 and 1.5 kg weights and 8 repetitive bands for knee extension, flexion and lift, hip extension, flexion, arm back and ankle support movements from sitting to standing. The probability of increasing the number of repetitions could be increased up to 12 times with the Borg pressure scale of 12 to 14. Balance and aerobic movements included walking, lifting on toes, lifting on heels, knee lifting, standing on one leg, shifting body weight in different directions, standing on two legs with or without the help of a chair.

Category

N/A

2

Description

Intervention group: Fasting subjects received a daily dose of 240 mg of ginkgo biloba supplement for 12 weeks.

Category

N/A

3

Description

Intervention group: Exercise including 5 minutes warm-up and 5 minutes of balance and walking movements and 5 minutes of progressive resistance training and 5 minutes of cooling which were performed for a total of 20 minutes for 5 days a week for 12 weeks. The training method was progressive and according to the level of ability of individuals. With 0.5, 0.75, 1.5 and 1.5 kg weights and 8 repetitive bands for knee extension, flexion and lift, hip extension, flexion, arm back and ankle support movements from sitting to standing. The probability of increasing the number of repetitions could be increased up to 12 times with the Borg pressure scale of 12 to 14. Balance and aerobic movements included lifting on toes, lifting on heels, knee lifting, standing on one leg, shifting body weight in different directions, standing on two legs with the help of a chair and without walking. Intervention group: Fasting subjects received a daily dose of 240 mg of ginkgo biloba supplement for 12 weeks and used 200 mg of ginkgo biloba mark made of French Vitarmonil.

Category

N/A

4

Description

Control group: A placebo was given daily for 12 weeks with a cellulose capsule that was similar in color to the contents of the ginkgo biloba capsule.

Category

Placebo

Recruitment centers

1

Recruitment center

Name of recruitment center

Sceince and Research branch of Islamic Azad University

Full name of responsible person

Shadi Jalalian

Street address

Sceince and Research branch of Islamic Azad University, End of Sattari Expressway, Shohada Hesarak University Boulevard (Student)

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Phone

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Email

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Sponsors / Funding sources

1

Sponsor

Name of organization / entity

Sceince and Research branch of Islamic Azad University

Full name of responsible person

Farshad Ghazalian

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Sceince and Research branch of Islamic Azad University, End of Sattari Expressway, Shohada Hesarak University Boulevard (Student)

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Grant name

Grant code / Reference number

Is the source of funding the same sponsor organization/entity?

Yes

Title of funding source

Sceince and Research branch of Islamic Azad University

Proportion provided by this source

50

Public or private sector

Public

Domestic or foreign origin

Domestic

Category of foreign source of funding

empty

Country of origin**Type of organization providing the funding**

Academic

Person responsible for general inquiries**Contact****Name of organization / entity**

Sceince and Research branch of Islamic Azad University,

Full name of responsible person

Shadi Jalalian

Position

دانشجو

Latest degree

Master

Other areas of specialty/work

Sport physiology

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Person responsible for scientific inquiries**Contact****Name of organization / entity**

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Full name of responsible person

Shadi Jalalian

Position

Student

Latest degree

Master

Other areas of specialty/work

Sport physiology

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Person responsible for updating data**Contact****Name of organization / entity**

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Latest degree

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Sharing plan**Deidentified Individual Participant Data Set (IPD)**

No - There is not a plan to make this available

Justification/reason for indecision/not sharing IPD

There is no more information

Study Protocol

No - There is not a plan to make this available

Statistical Analysis Plan

Not applicable

Informed Consent Form

No - There is not a plan to make this available

Clinical Study Report

Not applicable

Analytic Code

Not applicable

Data Dictionary

Not applicable